

**Automobile Manufacturers Association
Consolidated Specification Questionnaire
For 1950 Models
Mechanical Details**

Make of Car **CHEVROLET** Model **PASSENGER CAR**
 Name of Manufacturer **CHEVROLET DIVISION OF GENERAL MOTORS CORPORATION** Address **Detroit 2, Michigan**

Date **FEB. 15, 1950**

NOTE: (1) Subject to Correction: It is understood that the following data are subject to correction in the case of cars not in production at the time this compilation was requested.

(2) Only standard equipment included in Factory Delivered price should be included in this questionnaire.

ENGINE

No. of cylinders **6**
 Valve arrangement **In-head**
 Bore **3-1/2** Stroke **3-3/4**
 Cylinder head cast iron or aluminum **Cast Alloy Iron**
 Cylinder liners Yes **No**
 Valve displacement (cu. in.) **216.5**
 Piston horsepower **29.4**
 Horsepower rating—

In an answer on actual performance corrected to 60°F. at sea level (barometric pressure 29.92 inches of mercury) with standard fuel. (Gross H.P. of fuel **73**)

—With Base Engine—

Maximum brake hp. **92** at **3400** R.P.M.

—With Standard Accessories—

Maximum brake hp. **85** at **3300** R.P.M.

*These standard accessories needed for normal operation including fan, generator, starter, air cleaner, muffler, manifolds, fuel and water pumps.

Maximum torque—
 With base engine, lb. ft. **176** at **1000-2000** R.P.M.

With standard accessories, lb. ft. **170** at **1000-2000** R.P.M.

Compression ratio **6.6:1** Optional **None**

Standard compression pressure—pounds—
 At cranking speed **110**
 At rated R.P.M. **210-220**

PISTONS and RINGS

Piston **Own**
 Make **Cast Alloy Iron, surface treated**
 Features—split skirt, inner strut, oval, tin-plated, aluminum oxide finish, anti-thermic, V-Bridge, porous chrome plate, etc. **Flat head, oval, slipper skirt**
 Weight—ounces—without rings, pin or bushing **28**
 Length (in.) **3.75 Min.**
 Clearance—
 Top land **.0155** to **.0235**
 Skirt Pass on **.0015** Hold on **.003**

PISTONS and RINGS (cont'd)

Piston ring groove depth—
 Oil **.170-.183** Compression **.1490-.1645**
 No. of oil rings used per piston **One**
 Width of oil rings **.1860-.1865**
 Width of oil ring gap **.005-.015**
 No. of compression rings used per piston **Two**
 Width of compression rings **.1235-.1240**
 Width of compression ring gap **.005-.015**
 Maximum wall thickness of oil rings **.155 Max.**
 Maximum wall thickness of compression rings **.155 Max.**
 Are ring expanders used, **No**

RODS and PINS

Wristpin—
 Material **Chromium Steel (file hard case)**
 Length **3.135-3.165** Diameter **.8645-.8650**
 Locked in rod, piston or floating **Locked in rod**
 Clearance in piston **Pin bushing** Slip fit

Connecting rod—
 Length—center to center **6-13/16**
 Material **Drop-forged steel**
 Weight—ounces **31.2**

Crankpin journal—
 Diameter **2.311-2.312** Length **1.436-1.439**

Lower bearing—
 Material **High lead babbitt**
 Clearance **.0003** to **.0013**
 End play **.004** to **.012**

Shim **yes**—solid, laminated or none **Laminated**
 Spun or separate **Spun (centrifugally cast)**

Rods and pistons removed from above or below **Above**

CRANKSHAFT

Material **Drop-forged steel**
 Weight—stripped (pounds) **70**
 Vibration dampener used—yes or no **Yes**
 Type **Oscillating (rubber floated)**

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CRANKSHAFT (cont'd)

Crankshaft counterweights used, number of **7**
 Which main bearing takes thrust **#3**
 Crankshaft and pilot **.003-.009**
 Main bearing—
 Type: Cast-in or **Slip-in Precision**
 If slip-in: Removable from below **Yes**
 Necessary to align ream **No**
 Material **Steel-backed thin wall babbitt**
 Clearance **.0007-.0028**
 Shim—solid, laminated or none **Solid**
 Main bearing journal diameter x length—
 No. 1 **2.6835-2.6845 x 1-29/64**
 No. 2 **2.7145-2.7155 x 1-7/16**
 No. 3 **2.7455-2.7465 x 1.4345-1.4385**
 No. 4 **2.7765-2.7775 x 2-3/32 ***
 Main bearing inside diameter x length—
 No. 1 **2.6850-2.6866 x 1-3/16**
 No. 2 **2.7160-2.7176 x 1-1/8**
 No. 3 **2.7470-2.7486 x 1.4295-1.4315**
 No. 4 **2.7780-2.7796 x 1-5/8**
 Crankshaft gear
 Make **Own**
 Material **Steel**

CAMSHAFT

Camshaft gear
 Make **Various**
 Material **Bakelite and fabric composition with steel hub**

VALVES**INTAKE VALVE—**

Make **Own**
 Material **Extruded silichrome steel**
 Overall length **6.26-6.29**
 Actual overall diameter of head **1-41/64**
 Minimum port diameter **1-1/4**
 Angle of seat **30°**
 Is valve seat an insert? **No**
 Stem diameter **.3410-.3417**
 Stem to guide clearance **.001 to .0027**
 Lift **.2941**

VALVES (cont'd)

Spring pressure and length—
 With valve closed—lb. **53-63** ins. **1.821**
 With valve open—lb. **124-140** ins. **1.505**
 Length out of engine—ins. **2-1/8**

EXHAUST VALVE—

Make **Own**
 Material **Extruded high chrome steel**
 Overall length **4.917-4.947**
 Actual overall diameter of head **1-1/2**
 Minimum port diameter **1-1/4**
 Angle of seat **45°**
 Is valve seat an insert? **No** Material **Cylinder Head**
 Stem diameter **.3400-.3407**
 Stem to guide clearance **.002 to .0037**
 Lift **.3118**
 Spring pressure and length—
 Outer—
 With valve closed—lb. **53-63** ins. **1.821**
 With valve open—lb. **124-140** ins. **1.505**
 Length out of engine—ins. **2-1/8**

Operating tappet clearance (hot or cold)—intake **.006 hot**
 Tappet clearance for valve timing—intake
 Operating tappet clearance (hot or cold)—exhaust **.013 hot**
 Tappet clearance for valve timing—exhaust **Zero-Lash #1 exh.**
 Hydraulic valve lifters—yes or no **No**
 Valve timing—(theoretical)
 Intake opens **1** degrees AUCD
 Intake closes **39** " ALDC
 Exhaust opens **42** " BDC
 Exhaust closes **9** " AUCD
 Valve Timing Marks—on Flywheel

LUBRICATION

Lubricating system type—pressure or splash **Pressure, pressure stream and splash.**
 Oil pressure to—
 Main bearings—yes or no **Yes**
 Connecting rods—yes or no **Pressure stream**
 Wristpins—yes or no **No**
 Camshaft bearings—yes or no **Yes**
 Tappets—yes or no **No**
 Rocker Arms **Yes**

* 1-7/8" not including undercut

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STEERING

Steering gear—Hour Glass Worm and Ball Bearing
 Type—Roller Sector - Semi-Reversible,
 Make—Saginaw Model—620-J
 Ratio—17.4:1
 Lubricant recommended—See Note #
 Steering wheel diameter—17-1/4"
 Drag link longitudinal or transverse—Longitudinal
 Tie rod—one or two—Two
 Is intermediate steering arm used—Yes
 Number of turns of steering wheel for full left
 to right swing of wheels—4.11
 Car turning radius—feet—right, left or both—R - 19.25**
 Caster—degrees—30' ± 30' L - 19.75**
 Camber—degrees or 30' ± 30'
 Toe-in—inches—0.0 to 1/8
 Crosswise inclination of kingpin—degrees—40 ± 30'
 Front axle—Independent front wheel suspension
 Make—Own Model—Passenger Car
 Section type—I-beams, tubular or none—Part of Frame
 End type—Elliott or reverse Elliott—Reverse Elliott
 Minimum road clearance—tires inflated 7-13/16" Under Coil
 Spring Seat.

BRAKES

Foot brakes—
 Make—Own
 Type of mechanism, hydraulic or mechanical—Hydraulic
 If vacuum booster is standard, state make—None
 Brake lining moulded, semi-moulded or woven—Bonded
 Primary shoe—Full molded asbestos composition
 Secondary shoe—Full molded asbestos composition
 Drum—
 Material—See Note @ Diameter—11.0"
 Lining—
 Length per wheel—20-5/8"

BRAKES (cont'd)

Width—1-3/4" Thickness—.187"-.194"
 Clearance—top See Note # heel See Note #
 Total foot braking area—150 Sq. In.
 Percent braking power on rear wheels—42.3%
 Hand lever operates on—transmission, separate rear brakes, rear service brakes or all four service brakes—Rear Service Brakes

FRAME and OTHER GENERAL DATA

Frame—
 Depth—maximum—4-37/64"
 Thickness—maximum—1/8"
 Flange width—maximum—3-7/8"
 Wheelbase—115.0"
 Tread—
 Front—57.0"
 Rear—58-3/4"
 Weight of standard 5-passenger, four-door sedan—
 Shipping Styleline 3120 lb.; Fleetline 3115
 Curb Styleline 3250 lb.; Fleetline 3245
 Price of standard 5-passenger, 4-door sedan—\$1460.00 (A).
 First serial number, this series—@@
 Serial number location—Stamped on plate on left
 front body hinge pillar.
 Overall length of car—***
 With bumpers and bumper guards—197-1/2"
 Overall width of car—73-15/16"
 Overall height, road to roof with no load—#

* - Steering Gear, Multi-Purpose Gear
 Lubricant or Chassis Lubricant.

** - Minimum Walled Circle - R - 20.25
 L - 21.00

@ - Composite-Cast Alloy Iron Rim and
 Cooling Ribs with Pressed Steel Web.

@@ - Special series HJ-1001; Deluxe Series
 HK-1001.

- Adjust to slight drag. Back off four
 notches.

*** - Station Wagon 198-1/4.

- Fleetline - 64-7/8".
 Styleline - Sedans, Coupes - 65-3/4".
 Station Wagon - 70-1/8".
 Sedan Delivery - 67-5/8".
 Bel Air,
 Convertible - 64-1/16.

(A)- Suggested A.D.P. effective 1-7-50